V-One Mobile Data Computer User Guide

version 1.0

Mobile-Vision, Inc.

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Introduction

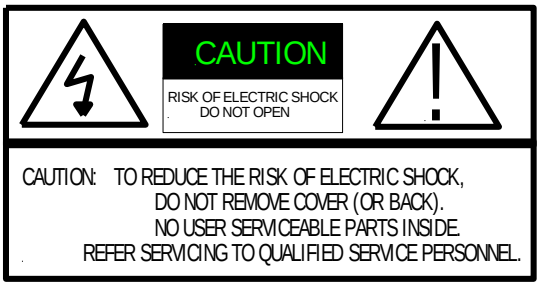
The V-One is a ruggedized mobile data computer that combines a monitor and CPU in one compact unit. This unit can be easily mounted in the front of your vehicle using a console or pedestal solution.

The V-One has an Intel™ Core i7 mobile processor, a 120 GB Solid State Drive, an optical CD/DVD player and recorder, 4 GB of RAM, and an impact-resistant IR touch screen. It supports Wi-Fi, GPS, and Bluetooth™.

The standard operating system for the V-One is Windows 7. This software comes pre-loaded on your V-One.

The V-One's peripherals are connected to the unit in a similar manner to a PC.

Important Safeguards



This symbol indicates important operating and maintenance instructions.

This symbol indicates un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to a person.

Attention: To reduce the risk of electric shock, do not perform any servicing other than that contained in this User Manual unless you are qualified to do so. Refer all servicing to qualified personnel.

DO NOT block ventilation openings.

DO NOT allow liquids to enter the V-One or any other component of the V-One. This could cause electrical shorts, fire, or other damage.

Installation should be made by a qualified technician and must conform to SAE Requirements.

Ground wires (black) must be connected to the vehicle's chassis. If your vehicle also has a Flashback in-car camera, make sure that both devices are grounded at the exact same point on the vehicle chassis.

Warning: Airbag Deployment— **DO NOT** install equipment or route wiring in the deployment path of an airbag. Failure to observe this warning will reduce the effectiveness of the airbag or potentially dislodge the equipment, causing serious injury.

Warning: Seat Removal Precaution—If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment. Failure to heed this warning could result in death or serious injury.

Warning: To ensure proper operation of the V-One, do *not* remove the PowerVu software that comes pre-loaded from the factory.

Notice: Drilling Precautions—When drilling holes, check the area into which you are drilling to be sure you do not damage vehicle components while drilling. All drilled holes should be deburred and all sharp edges should be smoothed. All wire routings going through drilled holes should be protected by a grommet or convolute/split loom tubing.

Do not disassemble this product. There are high-voltage areas inside which may give you an electric shock if you should touch them. Do not touch the pins and circuit boards inside, and do not allow foreign matter to enter inside. Any alterations or disassembly will void your L-3 Mobile-Vision warranty.

In the Box

- ❒ Combination CPU & Monitor
- ❒ Keyboard (if ordered)
- ❒ PCI Express Card Support Bracket
- ❒ Wi-Fi Antenna
- ❒ Power Cable
- ❒ GPS Antenna
- ❒ Windows 7 Professional
- ❒ Main System Fuse
- ❒ Ignition Fuse
- ❒ Phillips Bracket Screws
- ❒ Phillips Pan Head Screws
- ❒ Split Lock Washer
- ❒ Crimp Term Ring
- ❒ Flat Screw Washer
- ❒ Butt Connectors
- ❒ Hex 8 Screw

Specifications

System	
Housing	Cast-aluminum alloy
Software	Windows 7® Professional
CPU	Intel® Core™ i7-2620M 2.7 GHz processor; Intel Smart Cache™ 4MB
Memory	4GB RAM DDR3-1333
Storage	120GB solid-state drive (SSD)
Display/Resolution	12.1" LED backlit with IR touch screen; 1200 nits, 1024 x 768
Keyboard	Full travel, 86 key, integrated backlight with touchpad (if ordered)
Multi-Media	Internal CD/DVD RW optical drive
Audio	Internal stereo speakers
Expansion	PCI express and SD cards
Wireless	802.11 b/g/n and Bluetooth™ v2.1
GPS	WAAS, 50-channel with external SMA connector
Mounting	Rear VESA 75
Dimensions	10.4" x 12.2" x 2.8"
Warranty	3-year; includes factory parts and labor
Power Management	Programmable shutdown timer and built-in reverse polarity protection.

Interfaces

- (1) VGA
- (4) USB 2.0 ports
- (2) RS232 serial ports
- (2) 10/100/1000 Mbps LAN ports
- Function buttons (F1 – F5 and Emergency) on front
- PCI Express
- SD card

Environmental

- Designed to MIL-STD-810G
- Operating temperature: -20°C to +60°C (-4°F to +140°F)
- Non-operating temperature: -40°C to +85°C (-40°F to +185°F)
- Humidity: 5% to 95% non-condensing
- IP64 for front panel; IP 52 for side panel
- EMI/EMC—CE/FCC Class A

Parts List

Keyboard (if ordered)

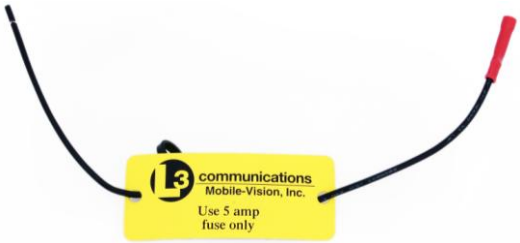
PCI Express Card Support Bracket

Wi-Fi Antenna

Power Cable

GPS Antenna

Main System Fuse
LCVCBLBATFUSE



Ignition Fuse
W-BAT-FUSE-CA1

Phillips Bracket Screws
HDW-95836A339

Phillips Pan Head Screws
HDW-90272A192

Split Lock Washers
HDW-91190A520

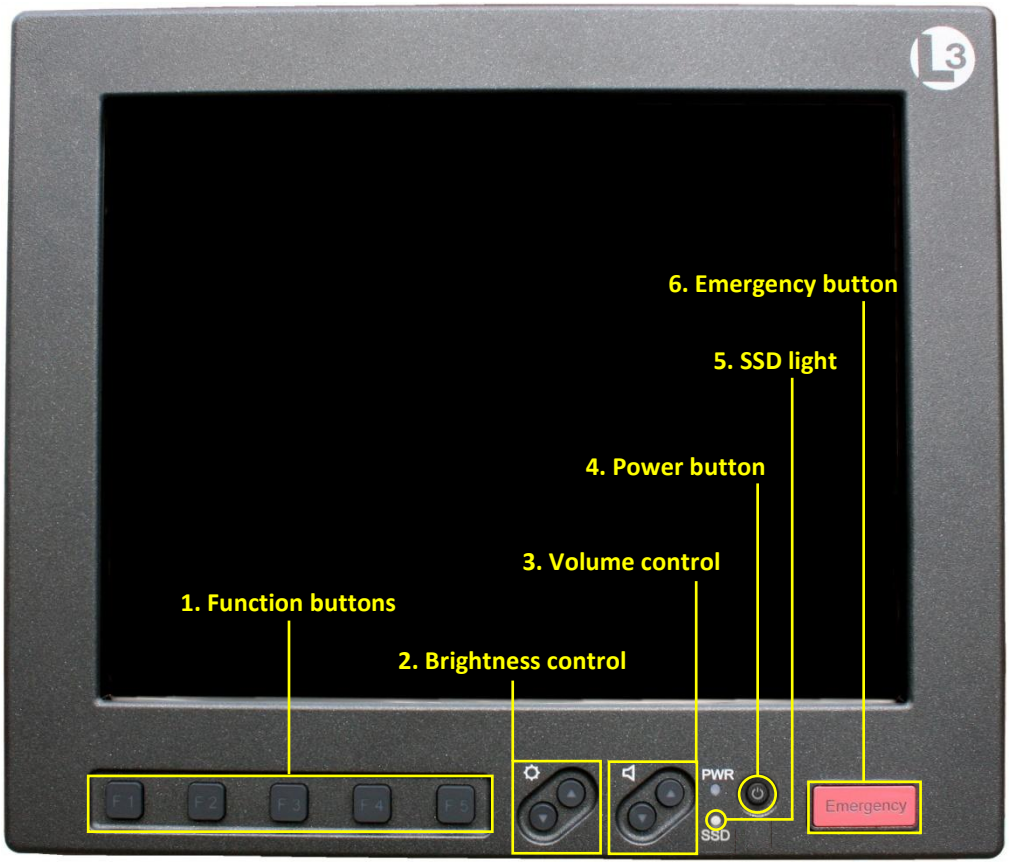
Crimp Term Rings
CO-571-36154

Flat Screw Washers
HDW-96765A120

Butt Connectors
CO-159-1622

Hex Screw
HDW-92685A200

Front View



1 ***Function buttons***. These backlight function buttons work in the exact same manner as the function buttons on your keyboard. Their use will vary depending on the software application that you are using them in. For example, pressing **F1** while you are using Microsoft Word will display the Word Help menu.

2 ***Brightness control***. To *increase* the brightness of your monitor, press the up arrow button. To *decrease* the brightness of your monitor, press the down arrow button. To turn off the backlighting of the Function buttons, press the up and down arrows simultaneously.

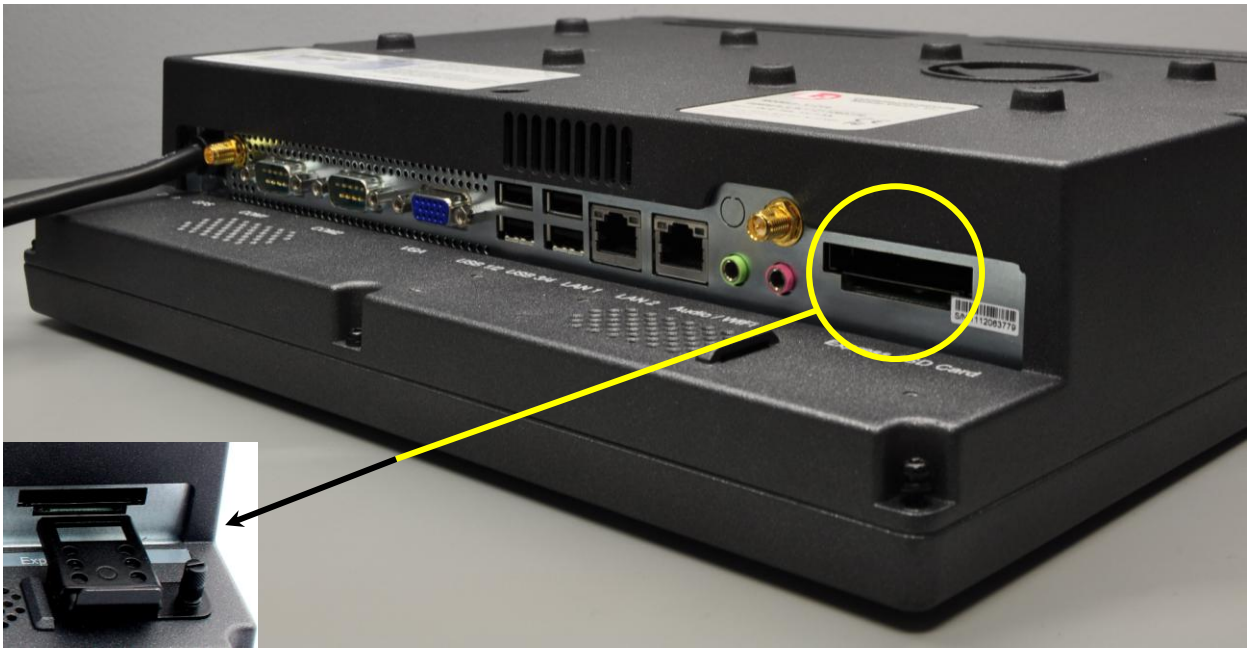
3 ***Audio Volume control***. To *increase* the audio volume, press the up arrow button. To *decrease* the audio volume, press the down arrow button.

4 ***Power button***. This button may be used to turn the V-One on. For instructions on how to turn the V-One off, see “Powering Down” on page 8.

5 ***SSD (Solid State Drive) light***. This light reflects activity on the Solid State Drive.

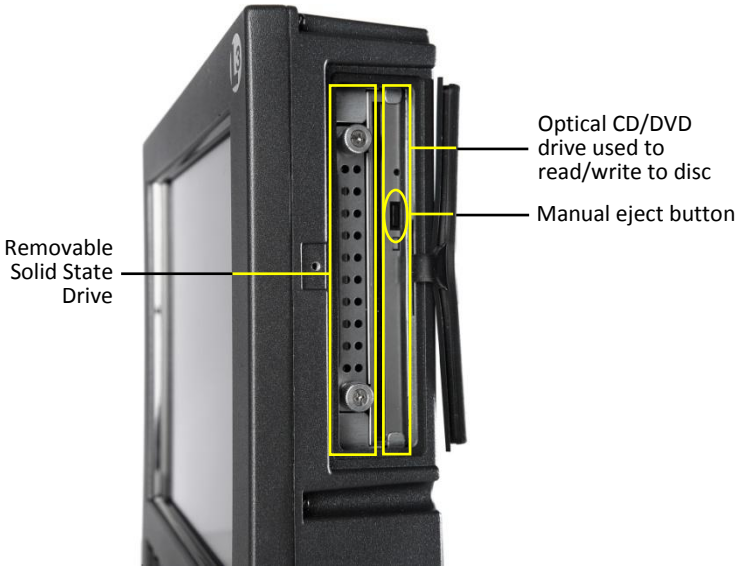
6 ***Emergency Button***. The Emergency button works in the exact same manner as the **Shift + F1** command on your keyboard. As with the F1 – F5 function buttons, its use varies depending on the software application that you use it in.

Rear View



With PCI Express Card
Support Bracket Installed

Side View



Computer Operation

Powering Up

The V-One is designed to power on automatically whenever you turn your vehicle's ignition *on*. This is the recommended method for turning your V-One on. You do not need to use the Power button, which is generally used by service technicians only.

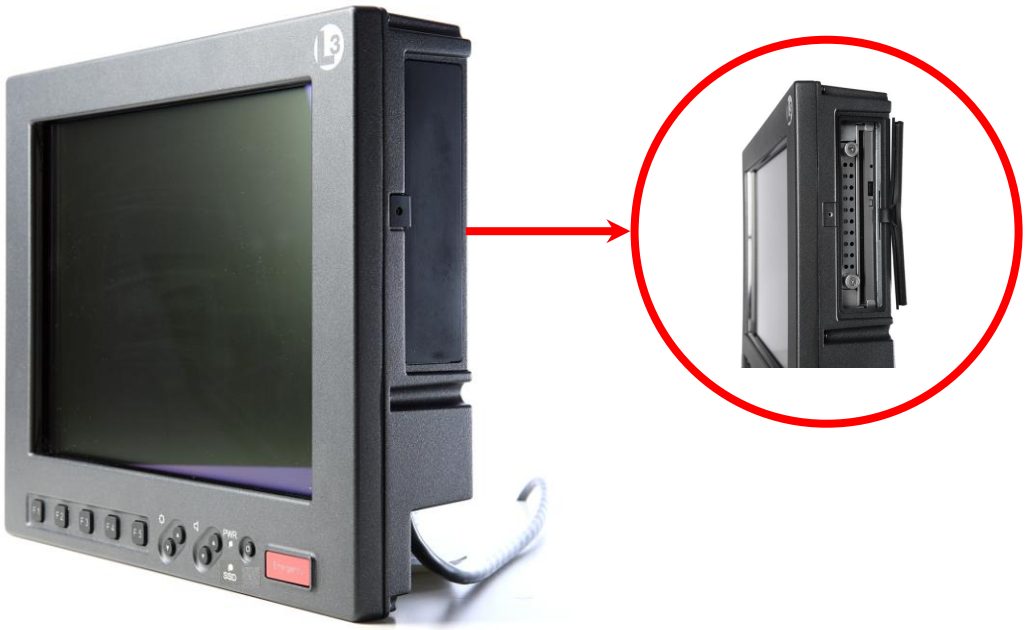
Powering Down

The V-One will automatically power off after a programmed ignition timer delay. The default setting for the automatic shutdown timer is fifteen (15) minutes. The ignition shutdown timer begins immediately after the vehicle's ignition is turned *off*. The default setting for the shutdown timer is typically set *once* at system start-up. For more information, see "Configuring the Shutdown Timer" on page 12.

WARNING: Do not shut the computer off through Windows *or* by pressing the **PWR** button unless instructed to do so by an L-3 Mobile-Vision Technical Support Representative.

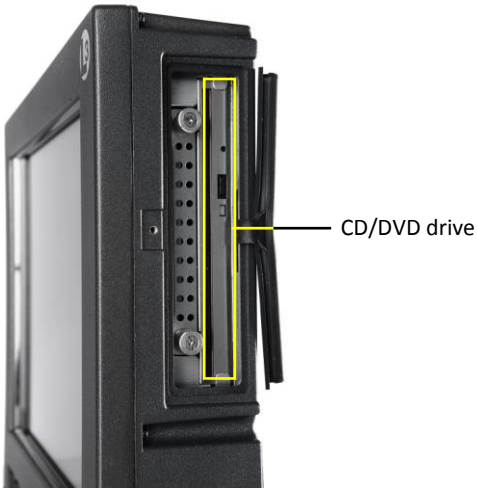
Protecting the Solid State Drive

Use the rubber cover included with your V-One to protect the Solid State Drive from accidental spills, dust, etc. Manually snap the cover in place using your fingers. If you will not be using the CD/DVD drive on a regular basis, you may also wish to secure the rubber cover with a screw. This screw can only be removed using a special screw driver provided by L-3 Mobile-Vision.



Loading a Disc

To load a CD or DVD, gently insert it into the V-One's CD/DVD cavity. You will feel the computer "grab" the disc when you insert it in this manner.



Opening an Application

To open a software application, either double-tap on the appropriate desktop icon using the IR touch screen, or tap the **Start** button and select **Programs** from the Windows menu.

Using Wi-Fi

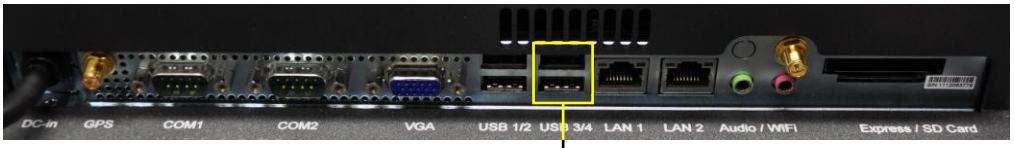
The V-One is Wi-Fi compatible. The exact manner in which you connect to your agency's network, however, will depend on the type of network your agency is using and how it's configured. For more information, speak with your agency's network specialist or IT manager.

Using Bluetooth™

The V-One is Bluetooth™ compatible. For instructions on how to pair your Bluetooth with various devices, refer to the instructions that come with your Bluetooth device.

Use of USB Ports during Sleep Mode

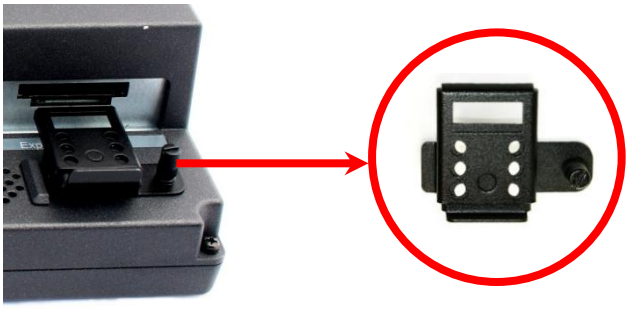
To conserve power, only two of the USB ports work when the V-One is in *Sleep* mode—the two on the right. It is therefore recommended that you use these ports to connect the keyboard and any other device that requires continuous power.



Use USB ports 3 & 4 for devices that require continuous power

Hardware Installation

1 Using the two screws provided, install the PCI Card Support.



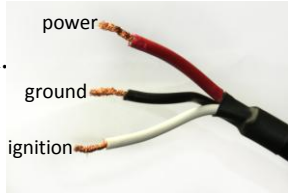
2 Install your console or pedestal mounting solution, as per the manufacturer's instructions.

3 If your mounting solution includes a mounting plate, connect that plate to the back of the V-One using M4 x .7 x 12mm Black Phillips Screws (part no. HDW-95836A339).

4 Connect the red power wire to the main system fuse included in your hardware kit (see red label fuse).

5 Connect the main system fuse to the battery positive terminal.

6 Connect the black ground wire to the vehicle chassis (ground).

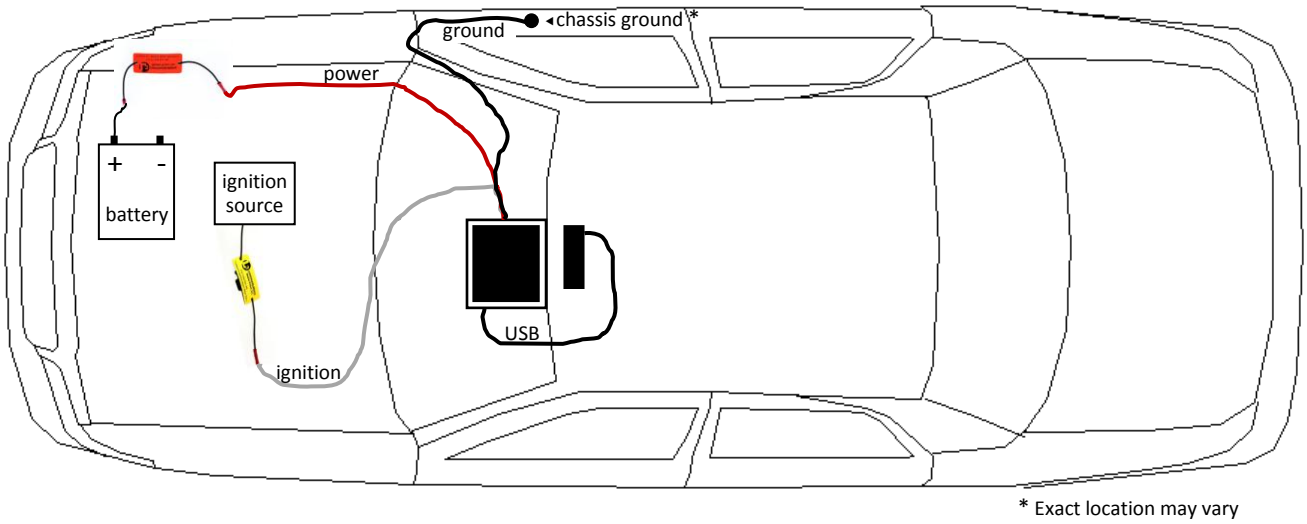


NOTE: If you also have a Flashback digital in-car video system installed in your vehicle, *both* the Flashback unit and the V-One must be grounded to the same point on the vehicle chassis.

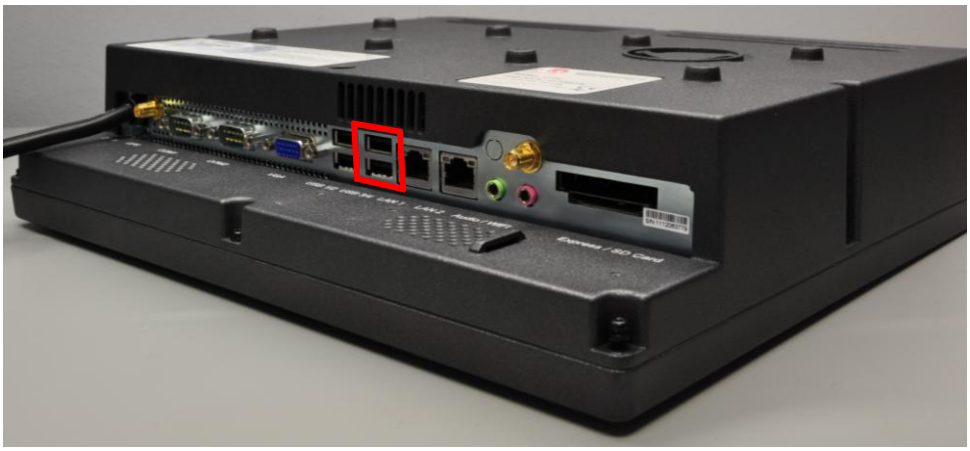
7 Connect the white ignition wire to the 5-amp ignition fuse included in your hardware kit (see yellow label fuse).

8 Connect the ignition fuse to your vehicle's ignition source (see **EXCEPTION** below).

> **EXCEPTION**: If the V-One will be installed in a vehicle that is always powered on (such as a fire truck), connect the ignition fuse to the battery positive terminal.



9 Connect your keyboard's USB cable to the V-One using one of the two USB ports located on the bottom right of the unit (i.e., port **3** or **4**).



Configuring the Shutdown Timer

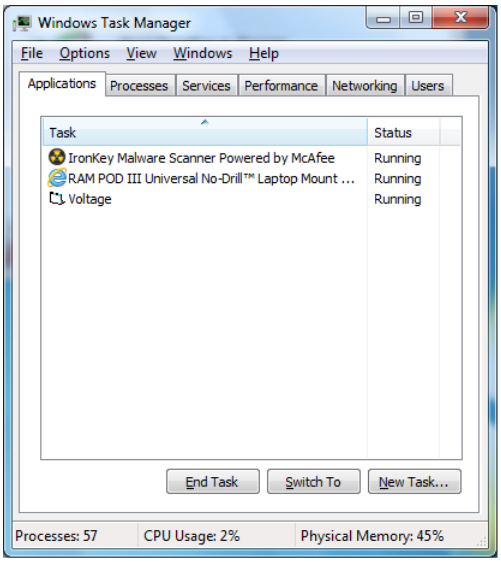
This procedure describes how to change the default settings for the V-One's Shutdown Timer, if desired. Specifically, you can:

- ❒ Specify the number of hours and minutes that the computer will remain powered on after the vehicle's ignition is turned off.
- ❒ Specify the number of additional minutes that the computer will remain powered on when you click the Snooze button located on the PowerVu menu.

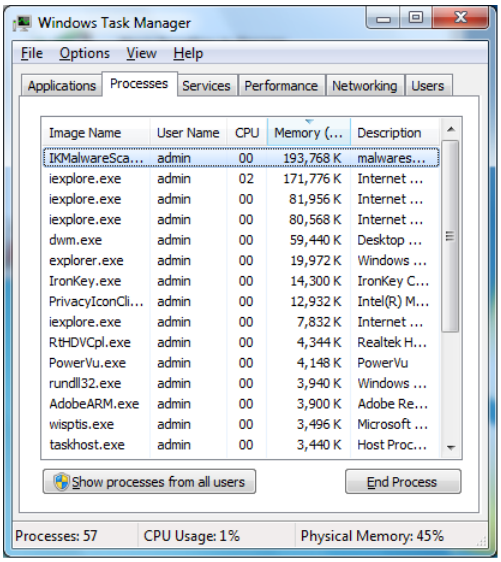
This procedure is performed only *once* at system start-up.

1 Press **Ctrl + Alt + Del**.

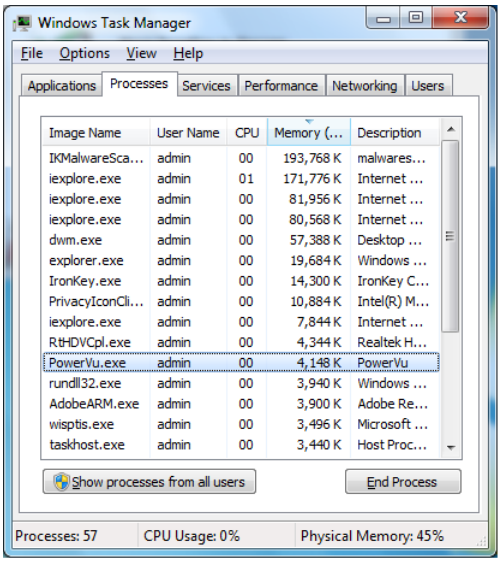
2 Click **Start Task Manager**. The Windows Task Manager displays.



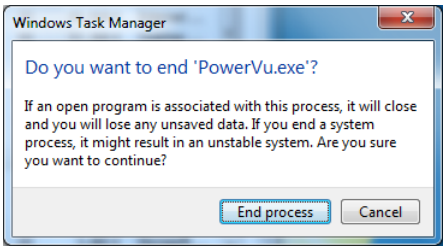
3 Click the **Processes** tab.



4 Click on **PowerVu.exe** to select it.



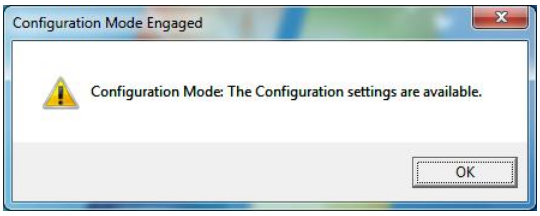
5 Click **End Process**. A confirmation popup displays.



6 Click **End process** again.

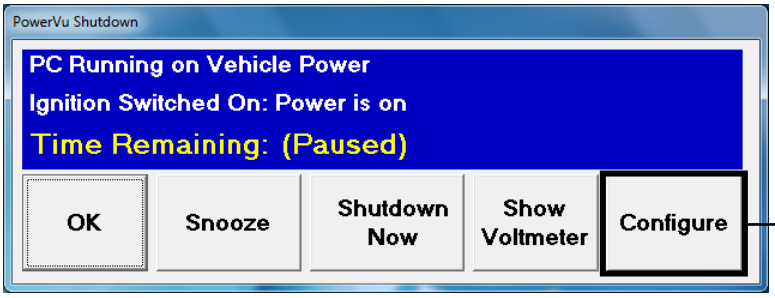
7 Click the ☒ in the upper right corner of the Windows Task Manager to close it.

8 Double-click on the desktop icon that reads *L3 PowerVu (Delete on first use)* icon. The Confirmation Mode Engaged popup displays.



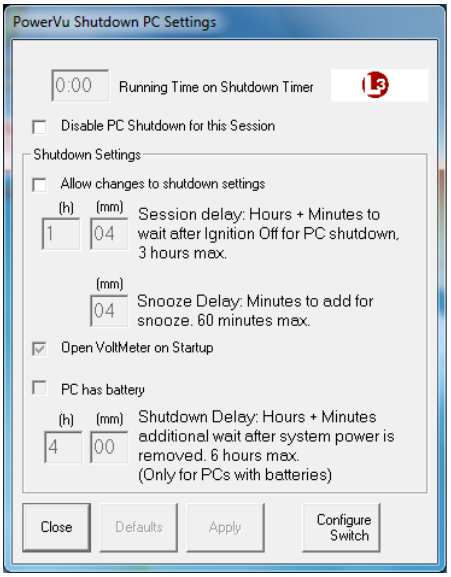
9 Click **OK**.

10 Double-click on the PowerVu lightening bolt icon in the lower right corner of your screen. The PowerVu menu displays.

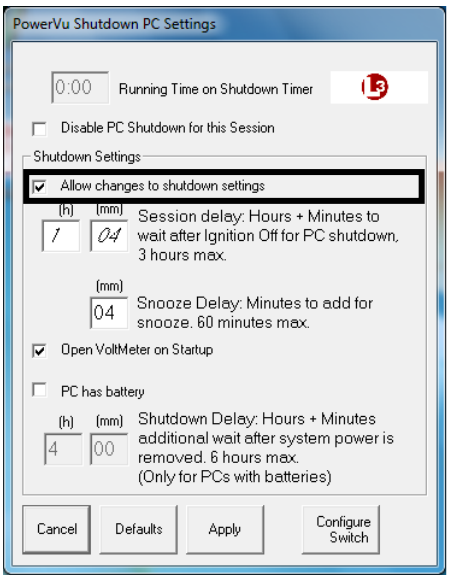


After you configure the PowerVu at system start-up, this button will disappear from the PowerVu menu

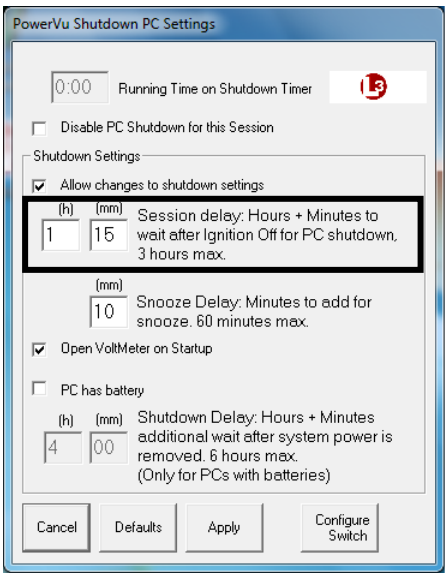
11 Click the **Configure** button. The PowerVu Shutdown PC Settings popup displays.



12 Select the *Allow changes to shutdown settings* checkbox, as pictured below.

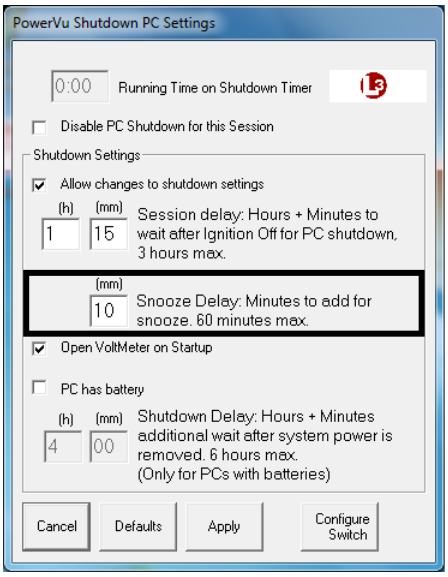


13 Enter the shutdown time you want to use, as pictured below. For example, if you want the V-One to shut down one hour and 15 minutes after the vehicle's ignition is turned off, enter **1** in the *(h)* field and **15** in the *(mm)* field.



If you want to set the shutdown timer to less than one hour, leave the *(h)* field blank.

14 Enter the Snooze Delay time you want to use, as pictured below. This setting allows you to extend the shutdown time "on the fly" by clicking the **Snooze** button on the PowerVu menu.



15 Click **Apply** to save your changes.

16 Click the **Close** button.

Regarding Adobe Acrobat

Your V-One unit comes preloaded with the Adobe Acrobat Reader. When you use the computer for the first time, you will be prompted to accept the product's license terms and agreements.

Contact Information

Our goal at L-3 Mobile-Vision is to provide you with the most dependable, rugged equipment for your mobile workforce. To ensure that you get the most from your investment, L-3 Mobile-Vision technical experts are available for training and questions. We take pride in our ability to provide you with the most comprehensive support available. This minimizes downtime and allows your workforce to concentrate on the "task at hand."

Technical Support

(800) 336-8475 ext. 3

Service

(800) 336-8475 ext. 3
fax: (973) 316-9509
http://www.mobile-vision.com/support

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